

JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE

Thursday, September 15, 2005, 1:00 p.m.

JPL - Building 303, Room 401

AGENDA

1. Introductory Remarks D. Morris
2. Conflict Resolution D. Morris
3. Action Items..... D. Morris
4. SPECIAL REPORT:
 - Proposed DSS Downtime Changes N. Lacey
 - Add 4 Weeks to DSS 63 Antenna Controller Replacement 2006 from Weeks: 21-35 to 17-35
 - Propose DSS 15 Antenna Drive Cabinet Refurbishment 2006 Weeks 36-40
 - Propose DSS 45 Antenna Drive Cabinet Refurbishment 2007 Weeks 35-39
5. Resource Analysis TeamE. Hampton
 - Mid-Range Status
 - Special Studies – Selene Launch Assessment

Jet Propulsion Laboratory
California Institute of Technology

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September 30, 2005
Refer to: 9110-04-16 AEA:DM

TO: Distribution

FROM: David Morris

SUBJECT: Minutes for the Joint Users Resource Allocation Planning Committee Meeting held September 15, 2005.

NEXT JURAP MEETING:
Thursday, October 20, 2005
JPL Bldg. 303, Room 401 1:00 p.m.

Attendees:

Abramo, C.	Durham, D.	Hampton, E.	Retana, J.
Andujo, A.	Frautnick, J.	Lacey, N.	Slade, M.
Brymer, B.	Guduru, S.	Page, C.	Tay, P.
Burke, G.	Hall, J.	Palmer, M.	Yetter, K.
			Zamora, K.

The Joint Users Resource Allocation Planning Committee meets monthly to review the status of Flight Projects, the requirements of other resource users, and to identify future requirements and outstanding conflicts. The previous meeting was held on July 21, 2005 at the Jet Propulsion Laboratory.

Introductory Remarks – D. Morris

Welcomed the attendees to the JURAP meeting and announced that this JURAP meeting would include DSN downtime proposals for DSS-15, DSS-45 and changes to DSS-63. There are no Mid-Range scheduling conflicts to discuss other than the impact from the proposed downtimes.

RARB Action Items – D. Morris

Reported on the status changes of the August 2005 RARB Action Item:

Action Item #1: Pending

Devise solution to problems identified associated with the new downtimes proposed at the August 2005 RARB.

Action Item #2: Closed

Review mission requirements during proposed DSS-63 D/T extension in both weeks 17-20 and 36-39 of 2006.

SPECIAL REPORTS***RAPS DSN Downtime Proposals – N. Lacey***

Mr. Lacey discussed the proposed downtime extension for Antenna Controller replacement at DSS-63 currently approved in weeks 21 – 35 of 2006 and impact to missions during this period. The proposed extension is for weeks 17 – 20 of 2006. The DSMS Engineering team feels that the time currently allotted for the DSS-63 Antenna Controller replacement is insufficient to complete the task because the final configuration will be different (the Hydrostatic Bearing Assembly refurbishment is planned in 2007) than those accomplished at DSS-14 and DSS-43. All missions with the exception of Cassini agreed to the proposed extension. James Frautnick representing the Cassini mission gave a short presentation outlining the missions' rejection of the proposed extension and their preference to extending the downtime to the four weeks after the previously approved downtime is due to complete. The proposal has been tabled until the RAPS team can perform further analysis.

Note: An action has been assigned to review mission requirements during the proposed DSS-63 D/T extension in both weeks 17-20 and 36-39 of 2006.

Mr. Lacey discussed the proposal to move the currently approved DSS-15 Antenna Drive Cabinet Refurbishment (ADCR) task from weeks 35 – 39 of 2007 to weeks 36 – 40 of 2006 and the impact to all missions. After reviewing the impact, all missions concurred with the DSS-15 downtime change.

Mr. Lacey discussed the proposal to move the currently approved DSS-45 Antenna Drive Cabinet Refurbishment (ADCR) task from weeks 36 – 40 of 2006 to weeks 35 – 39 of 2007 and the impact to all missions. After reviewing the impact, all missions concurred with the DSS-45 downtime change.

For a complete listing of Antenna Downtimes, visit the following link for the RAPS website:
<http://rapweb.jpl.nasa.gov/planning.html>

Impact of 2006 DSS-63 Downtime Extension on Cassini Radio Science - J. Frautnick

Mr. Frautnick explained the impact of the proposed DSS-63 downtime extension to Cassini Bi-Static Radio Science opportunities. During the proposed extension, weeks 17 – 20, Cassini will be in a unique position to observe a rare geometric event, the occultation of the Sun and Earth by the Saturn moon Titan in week 20 of 2006. In the alternate proposed extension of weeks 36 – 39, Cassini has another unique opportunity to observe the occultation of the Sun and the Earth by Saturn and the Saturn rings. During these events, the Cassini mission relies on DSS-63

because it is capable of a higher signal to noise ratio and dual polarization, which is necessary for a bi-static observation. If the extra four weeks of downtime is planned in the weeks 36-39, then the Cassini mission would like to try to capture this unique event as an engineering demonstration with DSS-63.

Resource Analysis Team**Mid-Range Status – J. Retana**

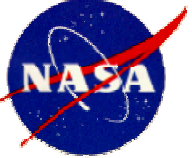
The RAPT Team has held additional negotiation meetings in an effort to catch up on de-conflicting Mid-range schedules out to 26 weeks after suffering setbacks associated with launch slips earlier this year. It is planned to hold additional meetings throughout October.

- Weeks 41 – 44/2005 transferred to DSN Scheduling August 22, 2005
- Weeks 45 – 48/2005 will be released to DSN Scheduling on September 16, 2005
- Weeks 49/2005 – 05/2006 awaiting conflict resolution, placing Mid-Range schedules at 20 weeks ahead of real time with 11 weeks conflict free and 9 weeks requiring conflict negotiation

Special Studies Summary:

- SELENE – Loading Study To Determine The Ability Of The Deep Space Network To Support SELENE Assuming Two Different Launch Dates July 1, 2007 And February 1, 2008.

Results indicate that SELENE is above 75% supportable if it launches on July 1, 2007 and above 90% supportable if it launches on February 1, 2008. 26M may not be available for initial acquisition. Alternatives for replacing the acquisition aid capability are being discussed. It is recommended that SELENE launch on February 1, 2008 to avoid contention with PHX Launch and to reduce contention on the oversubscribed 34BWG1 subnet during the DSS-63 approved downtime in 2007.



JOINT USERS RESOURCE ALLOCATION AND PLANNING COMMITTEE

Resource Allocation and Planning Services DSN Downtimes Proposals

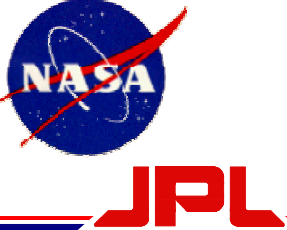
2006

DSS-63 and DSS-15

2007

DSS-45

**Presented by:
Napoleon Lacey**



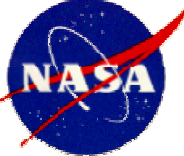
JOINT USERS RESOURCE ALLOCATION AND PLANNING COMMITTEE

2006 Proposed Downtimes

- ◆ **DSS-63 to add 4 additional weeks to the front end of the DSS-63 Antenna Controller Downtime in 2006. Change the DSS-63 downtime from weeks 21 to 35 to weeks 17 – 35.**
- ◆ **DSS-15 Antenna Drive Cabinet Refurbishment (ADCR) Downtime moved from weeks 35 – 39 of 2007 to weeks 36 – 40 of 2006**

2007 Proposed Downtime

- ◆ **DSS-45 Antenna Drive Cabinet Refurbishment (ADCR) Downtime moved from weeks 36 – 40 of 2006 to weeks 35 – 39 of 2007**



JURAP

Events, Recommendations and Impact

2006 – 24 April – 21 May (Weeks 17 - 20)

DSS-63 EVENTS

DSS-63 proposed Downtime addition for Antenna Controller Replacement (ACR) in weeks 17 – 20

DSS-63 Antenna Controller Replacement Downtime beginning in week 21

ATOT A01 Imagery 24-hour semi-annual event in week 17 at DSS-43

Cassini Tour

GSSR Mercury Radar Observation in weeks 17 and 19 and Lunar Pole Observation in week 20 at DSS-14/15

Mars Odyssey THEMIS ending in week 17

Mars Express Occultation ending in week 18, Orbital Science and Bi-Static Radar

Mars Reconnaissance Orbiter Aerobraking continuous

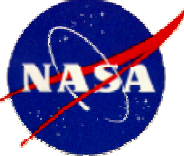
New Horizons Pluto Charon Latch Met CCD CMD in week 17

SOHO HSO Continuous ending in week 20 and Keyhole Event beginning in week 21

STEREO Ahead Maneuver, Attenuator support and Phasing

STEREO Behind Maneuver, Attenuator support and Phasing

Voyager 1 DTR array P/B in week 17, DOY 117 and ASCAL and MAGROL in week 18, DOY 122 and 125



Events, Recommendations and Impact

2006 – 24 April – 21 May (Weeks 17 - 20)

DSS-63 RECOMMENDATIONS

Approve DSS-63 proposed additional downtime for ACR Installation in weeks 17 – 20.

ATOT Development move all supports from the 70M to DSS-14,43

CAS Tour move 1 pass from DSS-63 to DSS-65 or DSS-14 in week 19 and move the array pass from DSS-63/54 to DSS-65/54 or DSS-14/15 in weeks 17 and 20

CLU2 SSO move all supports from DSS-66\65\63 to DSS-66\54\65 in weeks 17 and 19

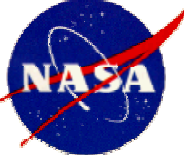
DSN ANTCAL S/X delete DSS-63 support in week 20

DSS delete 1 of 2 routine Maintenance supports at DSS-14 and delete all Bearing and Routine Maintenance at DSS-63

GBRA Guest OBSER move all supports from the 70M to DSS-14,43 and delete DSS-63 Host Country support in week 19

M01O Delta DOR move supports from DSS-14\63 to DSS-14\65 in week 20; M01O Mapping and MSPA with MGS move all passes from 70M to DSS-14,43,65 and move the 2 passes from DSS-43,63 to DSS-43,65 in week 17

MEX Orbital Science and MSPA with M01O Mapping move the 3 passes from DSS-14,63 to DSS-14,65 in week 18



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Events, Recommendations and Impact

2006 – 24 April – 21 May (Weeks 17 - 20)

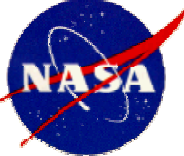


DSS-63 RECOMMENDATIONS Continued

MGS Standalone D/L move all passes from 70M to DSS-14,43 in weeks 18 and 19

ULYS Ranging move supports from DSS-54,63 to DSS-54 only in week 17

VGR1 move the five 4-hour passes from DSS-63 to DSS-54,55,65 in week 20



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Events, Recommendations and Impact

2006 – 24 April – 21 May (Weeks 17 - 20)



DSS-63 Mission Impact

The proposed downtime for weeks 17 through 20 impacts the following projects:

- **ATOT activities**
- **Cassini Tour**
- **Cluster SSO**
- **DSN ANTICAL**
- **DSS Maintenance at DSS-14**
- **GBRA activities**
- **MEX Orbital Science and MSPA with MGS**
- **M01O Mapping and MSPA with MGS Mapping**
- **MGS Standalone 70M passes**
- **ULYS Ranging**
- **VGR1Cruise**



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Events, Recommendations and Impact



2006 – 4 September – 8 October (Weeks 36 - 40)

DSS-15 EVENTS

DSS-15 proposed downtime (Antenna Drive Cabinet Refurbishment) in weeks 36 - 40

ATOT A01 Astrometry 24-hour semi-annual event at DSS-43 in week 36

Cassini Tour

Chandra Lunar Eclipse in week 40

GSSR Asteroid 2001 CB21 beginning in week 39

Mars Express Bi-Static Radar in week 37, Orbital Science in weeks 36 and 37 and Solar Corona R/S beginning in week 38

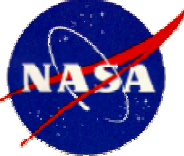
Mars Reconnaissance Orbiter Aerobraking continuous support ending in week 37, DOY 256 and Transition to Prime Science ending in week 40, DOY 279 and Solar Conjunction beginning in week 40, DOY 280

MESSENGER Delta DOR support beginning in week 39

New Horizons Delta DOR support in weeks 37 and 38

Rosetta Mars Swingby beginning in week 36, DOY 250

SOHO Keyhole event ending in week 37, DOY 259



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Events, Recommendations and Impact



2006 – 4 September – 8 October (Weeks 36 - 40)

DSS-15 EVENTS Continued

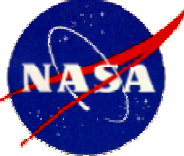
STEREO Ahead Prime Science

STEREO Behind Prime Science

Venus Express Solar Corona beginning in week 38 and Bi-Static Radar 4 in week 39, DOY 273

Voyager 2 DTR P/B in week 36, DOY 249, ASCAL and MAGROL in week 37, DOY 255 and 258

Wilkinson Microwave Anisotropy Probe TCM in week 39, DOY 274



Events, Recommendations and Impact



2006 – 4 September – 8 October (Weeks 36 - 40)

DSS-15 RECOMMENDATIONS

Approve DSS-15 downtime for ADCR in weeks 36 – 40

CAS Tour move 9-hour passes (1 Pass per week) from the 34HEF to DSS-25,45,65 in weeks 36 – 38 and move all three 9-hour passes from the 34HEF to DSS-24,45,65 in weeks 39 and 40

CLU2 SSO move all passes per week from DSS-24/24/15/14 to DSS-27/24/14 and move the 1 MSO pass in week 38 from DSS-27/24/15/14 to DSS-27/24/14

DAWN Cruise move all 8-hour passes (1 per week) from the 34HEF to DSS-45,65 only

DSS Maintenance delete all DSS-15 maintenance and reduce DSS-45 maintenance from 8 hours to 6 hours

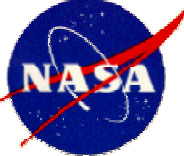
GSSR Lunar Pole move the one 4-hour pass from DSS-14/15,25 to DSS-14/25 in week 36

MEX MSPA with MGS MAP move the three 8-hour passes from DSS-15,63 to DSS-25,14,63 in weeks 36 – 39

MGS MAP/Beta MSPA with M01O MAP move the three 8-hour passes from the 34HEF to DSS-24,45,65

MGS Mapping move the two 10-hour standalone passes from the 34HEF to the 34BWG2 subnet in week 40

MRO Aerobraking move 8 passes in week 36 and 5 passes in week 37 from the DSS-15,45,55 to the 34BWG2,34BWG1 subnet



Events, Recommendations and Impact



2006 – 4 September – 8 October (Weeks 36 - 40)

DSS-15 RECOMMENDATIONS Continued

MRO Aerobraking move 6 passes from DSS-25,26,45,55 and 7 passes from DSS-25,26,34,54 to the 34BWG2,34BWG1 subnet in week 36

MRO Solar Conjunction move 4 passes from the 34HEF to DSS-25,34,55 in week 40

MRO Transition to Prime Science move 8 passes in week 37, 14 passes in weeks 38 and 39, and 10 passes in week 40 from DSS-15,34,55,65 to DSS-25,45,55,65

MSGR Delta DOR move supports from DSS-15\45 and DSS-15\65 to DSS-25\45 and DSS-25\65 in weeks 39 and 40

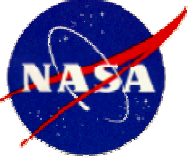
NHPC Cruise move the two 8-hour passes in week 36 and 1 pass each in weeks 37 and 38 from the 34HEF to DSS-24,54. (This was agreed to in the 08/09/05 RARB)

RFC CAT M&E move supports from DSS-15\45,15\65 to DSS-14\45,14\65 in week 36; move CLK SYNC Tempo from DSS-15\65 to DSS-14\65 in weeks 37 and 39

ROSE Mars Swingby move all 7 passes per week from DSS-15,24,26 to DSS-25,26,54

SGP delete support at DSS-15 in week 39

SOHO Keyhole move 7 passes in week 36 and 8 passes in week 37 from DSS-15/27,45/45,5/66 to DSS-14/27,45/46,65/66



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Events, Recommendations and Impact

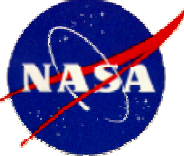


2006 – 4 September – 8 October (Weeks 36 - 40)

DSS-15 RECOMMENDATIONS Continued

VEX move 2 – 3 passes per week from the 34HEF to DSS-45,65 in weeks 38 – 40

VGR1 move all seven 6-hour passes from DSS-24,25,15 to DSS-24,25,26 in weeks 36 – 39



Events, Recommendations and Impact



2006 – 4 September – 8 October (Weeks 36 - 40)

DSS-15 Mission Impact

The proposed downtime for weeks 36 through 40 impacts the following projects:

- Cassini Tour
- Cluster SSO and MSO
- DAWN Cruise
- DSS Maintenance at DSS-45
- GSSR Lunar Pole
- MEX R/S and MSPA with MGS
- MGS, MGS MSPA with M010
- MRO Aerobraking, Solar Conjunction and Transition to Prime Science
- MSGR
- NHPC
- RFC
- ROSE Mars Swingby
- SGP Crustal Dynamics Activity
- SOHO Keyhole
- VEX Solar Corona
- VGR1 Cruise.



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Events, Recommendations and Impact



2007 – 27 August – 30 September (Weeks 35 - 39)

DSS-45 EVENTS

DSS-45 proposed downtime for Antenna Drive Cabinet Refurbishment (ADCR) in weeks 35 - 39

DSS-63 Hydrostatic Bearing Refurbishment Downtime ending in week 37

ATOT A01 Astrometry 24-hour semi-annual event in week 37 at DSS-43

Cassini Tour

GSSR Mercury Radar Observations in week 39

Mars Express Orbital Science and Bi-Static Radar

Mars Reconnaissance Orbiter Prime Science and Ka Ops

New Horizons Pluto Charon Beacon and Hi-Rate Telemetry in weeks 35 – 37

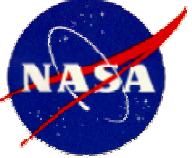
Phoenix ACS/NAV in week 37 and TCM in week 39

SOHO Keyhole Event ending in week 36 and HSO Continuous beginning in week 37

STEREO Ahead Prime Science

STEREO Behind Prime Science

Ulysses Nutation



JURAP

Events, Recommendations and Impact

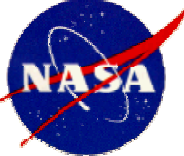


2007 – 27 August – 30 September (Weeks 35 - 39)

DSS-45 EVENTS Continued

Voyager 2 DTR P/B in week 36, DOY 248, ASCAL and MAGROL in week 37, DOY 254 and DOY 257

WMAP maneuver in week 37



Events, Recommendations and Impact



2007 – 27 August – 30 September (Weeks 35 - 39)

DSS-45 RECOMMENDATIONS

DSS approve DSS-45 Downtime for ADCR

CAS Tour move all passes (4 in wk 35, 3 in wks 36,38, and 39 and 2 in wk 37) from the 34HEF to DSS-15,34,65

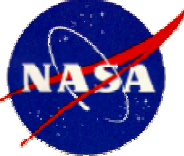
CLU2 SSO move all supports (1 to 2 passes per week) and the 1 MSO support in week 36 from DSS-46/34/45/43 to DSS-46/34/43

DSS Maintenance delete all DSS-45 maintenance and reduce DSS-15 maintenance from 8 hours to 6 hours

MER 1 D/L & U/L move all 4.5-hour passes from DSS-45,34,26 to DSS-34,26 in weeks 35 – 39

MER 2 D/L & U/L move all 4.5-hour passes from DSS-45,34,26 to DSS-34,26 in weeks 35 – 39

MGS Mapping and Beta Supplement move two passes in week 38 and seven passes in week 39 from the 34HEF to DSS-15,34,65 and reduce all support duration from 10 hours to 8 hours



Events, Recommendations and Impact



2007 – 27 August – 30 September (Weeks 35 - 39)

DSS-45 RECOMMENDATIONS Continued

MRO Prime Science move 7 of 14 passes from the 34BWG2,34HEF to the 34BWG2 and move the remaining 7 passes to DSS-15,34,65 in week 35

MSGR Cruise move 3 passes from the 34HEF to DSS-15,65 in week 35 and move 3 passes from DSS-26,45,55 to DSS-15,34,65 in weeks 37 – 39

NHPC Delta DOR move supports from DSS-15\65,15\45 to DSS-15\65,15\34 in weeks 38 and 39

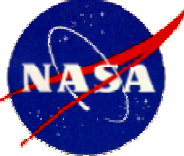
PHX ACS/NAV move the one pass from the 344HEF to DSS-15,65 in week 37, move all cruise passes from DSS-26,45,54 to DSS-26,34,54 and all Delta DOR supports from DSS-24\45,24\65 to DSS-24\34,24\65

RFC CAT M&E move supports from DSS-14\45,14\65 to DSS-15\43,15\65 in weeks 37 and 38

SGP Crust DYN W-M4 delete support at DSS-45 in week 36

SOHO Keyhole Event move the 3 supports from DSS-15/27,45/46,65/66 to DSS-15/27,34/46,65/66 in week 36

VGR2 move the seven 8-hour passes from DSS-43,45,34 to DSS-43,34



Events, Recommendations and Impact



2007 – 27 August – 30 September (Weeks 35 - 39)

DSS-45 Mission Impact

The proposed downtime for weeks 35 through 39 impacts the following projects:

- Cassini Tour
- Cluster II SSO and MSO
- DSS Maintenance at DSS-15
- MER 1 and 2 U/L & D/L supports
- MGS Mapping and Beta Supplement
- MRO Prime Science
- MSGR Cruise
- NHPC Delta DOR Supports
- PHX ACS/NAV, Cruise and Delta DOR supports
- RFC CAT M&E supports
- SGP Crustal Dynamics supports
- SOHO Keyhole
- VGR2 routine supports

Impact of 2006 DSS-63 Downtime Extension on Cassini Radio Science

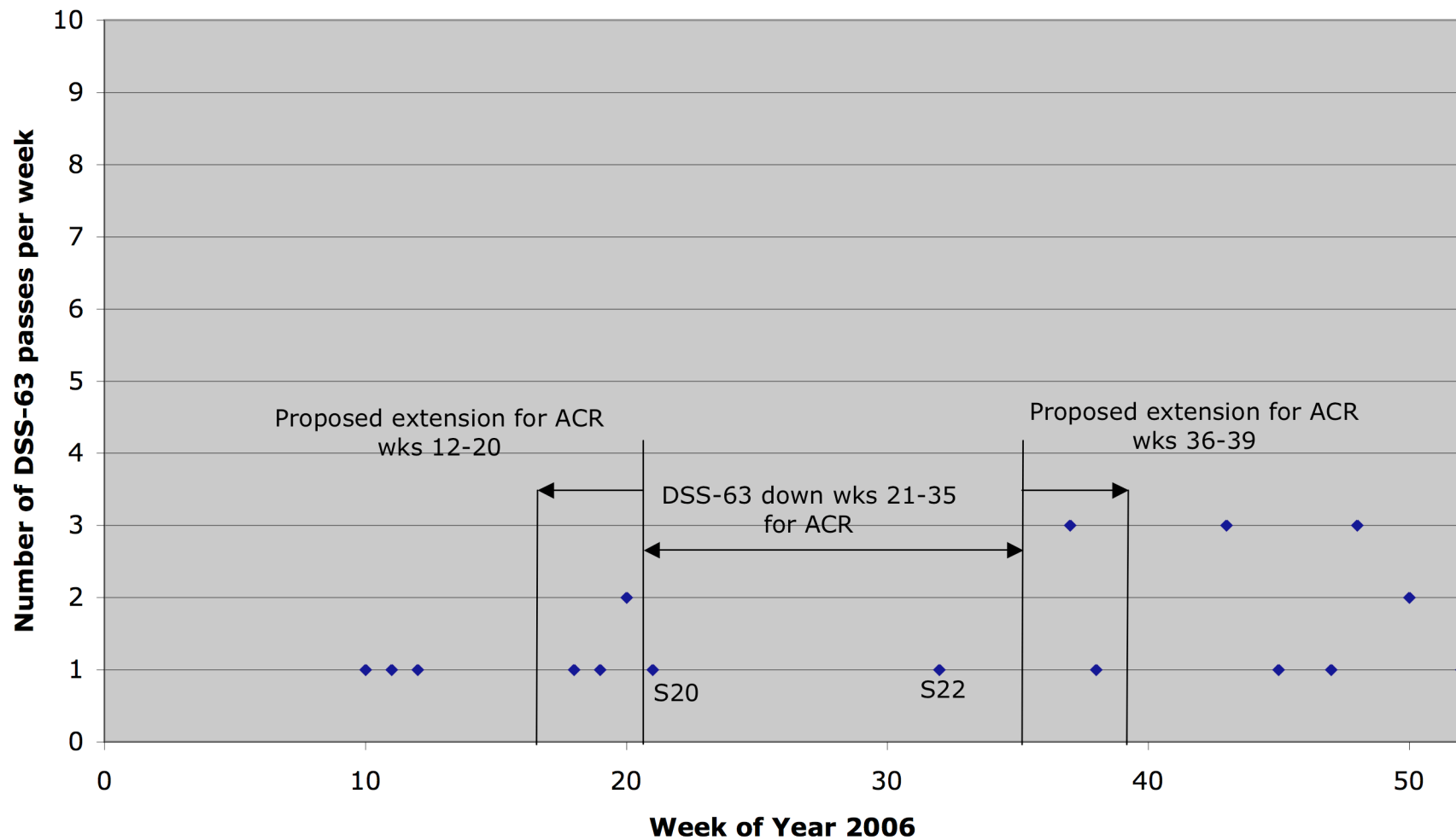
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15 September 2005

DSS-63 Downtime

- Current Schedule
 - Weeks 21-35,
 - DOY 142-246, 22 May-3 Sep
- Proposal
 - Add 4 weeks to either front or end of current plan
 - Rationale: work is more complicated and requires more time

DSS-63 Cassini Requests in 2006

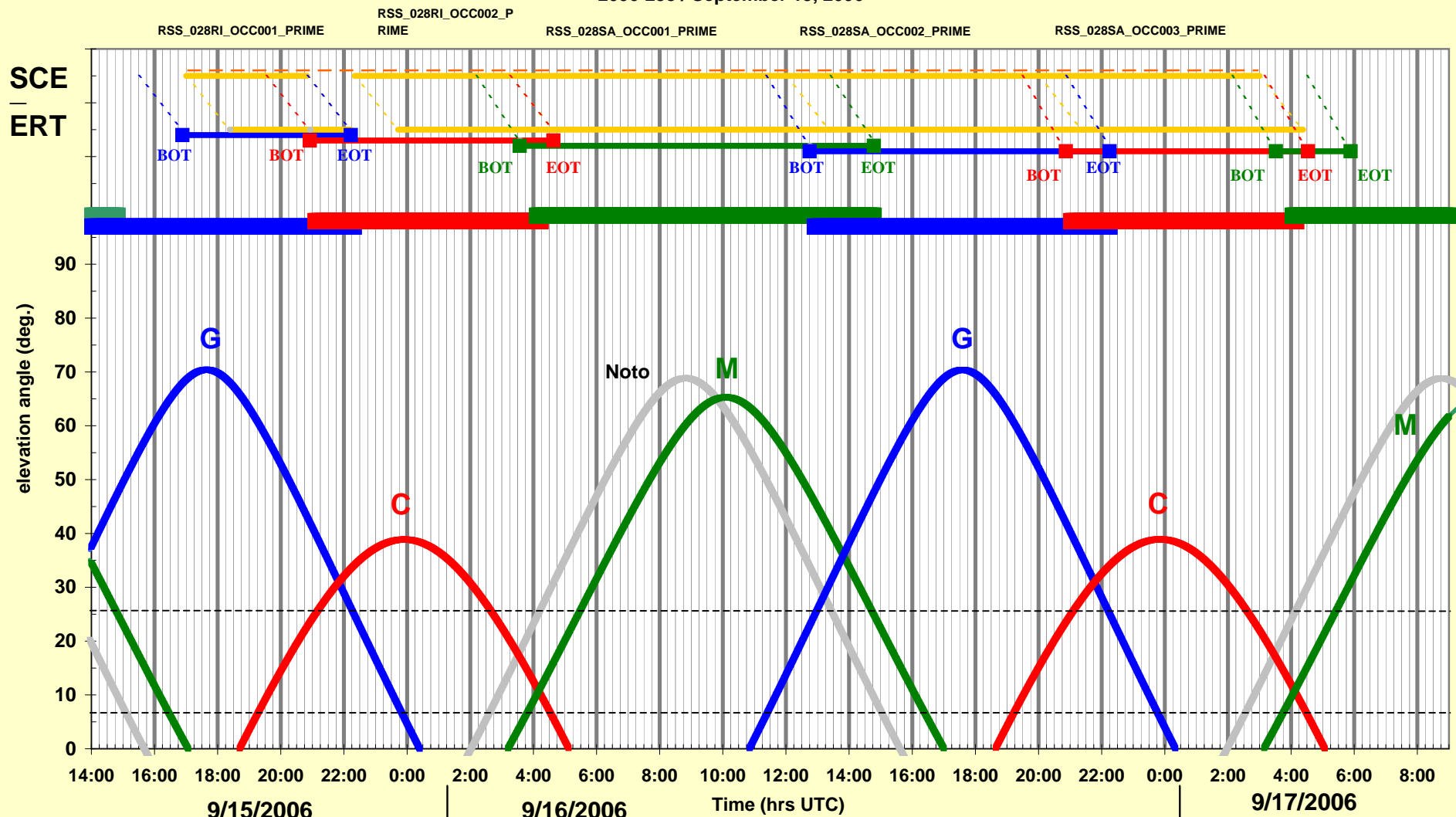


Impact to Cassini

- Current downtime is well placed to minimize impact to Cassini (*see plot*)
- Main concern is Radio Science geometric events
 - DSS-63 always preferred over DSS-65 for RSS events
 - Higher SNR (about 6dB)
 - Simultaneous dual polarization
 - DSS-65 can do either, but not both
 - Earlier extension would delete DSS-63 support of bi-static occultation of Sun and Earth by Titan
 - Bi-static is direct signals through atmosphere and reflected signals from surface of Titan
 - Later extension would delete DSS-63 support of longest occultation (>24 hrs) of Sun and Earth by rings and Saturn
 - Each complex has two observing periods

Saturn - Rings Occultation REV 28

2006-258 / September 15, 2006



Impact to Cassini (continued)

- Impact if add time before current plan
 - Four passes in weeks 17-20
 - Bi-static occultation of Sun and Earth by Titan week 20
 - Rare geometric event
- Impact if add time after current plan
 - Four passes in weeks 36-39
 - Sun/Earth occultation by rings/Saturn week 37
 - Longest occultation in Cassini Tour and unique event
 - 2 DSS-63 passes

Science Implications

- Dual polarization is a must for Bistatic observations, but also an enhancement for ring occultations
- Higher SNR affects sensitivity to small-scale structure in upper atmosphere as well as how deep the signal can probe (3 dB => increase structure sensitivity by 1.4)

Cassini Conclusions

- Both observations have unique characteristics and both are rare occurrences
- Cassini requests that every effort be made to fit the ACR into the original 15 week period
- If the ACR must be extended, Cassini RSS prefers to protect the bistatic measurement in week 20
- For the week 37 occultations, Cassini requests the use of DSS-65 to provide S- and X-band support (without simultaneous dual polarization)
 - If the ACR work is completed early, Cassini requests that DSS-63 be added to the Cassini week 37 support
 - DSN investigate whether DSS-63 can be brought up for week 37 and then complete ACR later

JOINT USERS RESOURCE ALLOCATION PLANNING COMMITTEE

Resource Analysis Team

September 15, 2005

Joaquin Retana



Mid-Range Scheduling Status

- ◆ The RAP Team is currently meeting every Friday through the end of October to get back on track with negotiations. The RAP Team had fallen behind due to real-time activities.

- ◆ **RESOURCE NEGOTIATION STATUS**
 - 2005 WEEKS 41 - 44 (THRU 11/06/2005) WERE RELEASED TO DSN SCHEDULING ON 08/22/2005.

 - 2005 WEEKS 45 - 48 (THRU 12/04/2005) ARE DUE TO BE RELEASED TO DSN SCHEDULING ON 09/16/2005.

 - 2005 WEEKS 49 - 05 (THRU 02/05/2006) ARE AWAITING CONFLICT RESOLUTION OF REMAINING CONFLICTS

- ◆ The Mid-range Scheduling process has negotiated schedules 20 weeks ahead of real-time. Currently, there are 11 weeks of conflict-free schedules. Conflict Resolution is required for the following nine (9) weeks: 49/2005 through 05/2006.

◆ SIGNIFICANT EVENTS

- Provided TIGRAS training at Goddard August 25 & 26 2005

◆ ON-GOING SPECIAL STUDIES/ACTIVITIES

- Downtime Planning
- MADB/TIGRAS Testing, Training and Database update
- New STEREO A & B April 11, 2006 Launch Study
- RPS SVE Policies & Practices 814-010 submitted for signature
- DSS-66 and DSS-46 Closure Impact Study #2

◆ SPECIAL STUDY SUMMARY

SELENE Launch Assessment

Completed: August 23, 2005

Purpose

The SELENE project tasked RAPS to performed a loading study to determine the ability of Deep Space Network to support SELENE assuming two different launch dates July 1, 2007 and February 1, 2008.

Conclusion

SELENE is above 75% supportable if it launches on July 1, 2007 and above 90% supportable if it launches on February 1, 2008. 26M may not be available for initial acquisition. Alternatives for replacing the acquisition aid capability are being discussed. It is recommended that SELENE launch on February 1, 2008 to avoid contention with PHX Launch and to reduce contention on the oversubscribed 34BWG1 subnet during the DSS-63 approved downtime in 2007.